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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,157	02/12/2004	Yao-Ching Su	AUOP0010USA	2156

27765 7590 07/06/2006

NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION  
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EXAMINER
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GUHARAY, KARABI

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 07/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/708,157		SU ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Karabi Guharay		2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on Amendment, filed on 17 April 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 8-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 8-16 is/are rejected.
- 7) ☒ Claim(s) 17-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

Amendment, filed on 17 April 2006 has been considered and entered.

Claim 1 has been amended. Claim 7 has been canceled.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 8-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen et al. (US 6515420).

Regarding claim 1, Chen et al. disclose a plasma display device (see Fig 2) comprising a plurality of first closed rib units (some of 60b of Fig 2 & 3, formed of two intersecting ribs 58 & 53, lines 35-40 of column 4) between a front substrate (44) and a rear substrate (42); a plurality of first discharge spaces defined between the front substrate, the rear substrate, and each of the first closed rib units (some of the 60b); each of the first discharge spaces further comprising at least one extended rib (58) for defining each of the subpixels, longer extension of ribs define two subpixels in the first discharge space without completely separating the sub-pixel units in the single first discharge space, and a plurality of sub-pixel units (62), each of the first discharge spaces comprising at least two of the sub-pixels (lines 55-60 of column 3).

Regarding claim 2, Chen et al. discloses that the sub-pixel units (62) comprise a plurality of red sub-pixel units, blue sub-pixel unit, and green sub-pixel unit wherein one of red, green and blue constitute a pixel unit (lines 65 of column 3- line 4 of column 4).

Regarding claim 3, Chen et al. discloses that the each of the sub-pixel unit (62) comprises a first electrode (46), a second electrode (48), and an addressing electrode (50) opposite to the first and second electrode for igniting plasma in each of the sub-pixel (see Fig 2, lines 5-25 of column 3).

Regarding claim 4, Chen et al. disclose that the first and second electrode of each of the sub-pixel unit (62) comprises a first protrude portion (462) and a second protruded portion (482) opposing each other and igniting plasma in each sub-pixel units (lines 5-13 of column 4).

Regarding claim 8, Chen et al. discloses that the each of the first closed rib units comprises a quadrilateral ring (see Fig 3).

Regarding claim 9, Chen et al disclose that the sub pixel units (62) of each pixel are arranged in delta (since 6 sub-pixels shown in fig 2, have two red R, two green (G) and two blue (B) along the extension of rib 58, while along the extension of second rib (53) sub-pixels are arranged like R G B, thus one set of RGB are arranged in delta).

Regarding claim 10, Chen et al. discloses that the sub-pixel units of each pixel are arranged in a line (see Fig 2).

Regarding claims 11-14, Chen et al. disclose a plurality of second discharge spaces (some other 60bs), each of which comprises one of the sub-pixel units (red or green or blue), a plurality of second closed rib structure (some of the 60b's), and the

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second discharge spaced are defined between front substrate and rear substrate and each of the second closed rib units which comprises a structure of a quadrilateral ring (see Fig 2 & 3).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al., as applied to claim 1 above, and further in view of Betsui et al. (US 5825128).

Regarding claims 15-16, Chen et al. disclose all the limitations of claim 15-16, except for the first closed rib units are waffle structure ribs.

However, Betsui, in the same field of plasma display, discloses closed rib units (see Fig 7A) where the units are waffle shaped ribs. Betsui further teaches that the such structure of the ribs provide brightness enhancement of the display screen by decreasing the area of the non-luminescent portion of the display screen (lines 36-38 of column 2).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have waffle structured ribs, as taught by Betsui, in the device of Chen et al., since this will enhance the brightness of the display screen.

***Allowable Subject Matter***

Claims 17-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for indicating allowable subject matter have been presented in previous office action.

***Response to Arguments***

Applicant's arguments filed on 17 April 2006 have been fully considered but they are not persuasive.

In Remark, applicant contends that each of the discharge space 60 of prior art comprises no extended ribs for separating the display unit incompletely.

Examiner respectfully disagrees. Chen's rib (58) and rib (53) extend to provide two separate subpixels in a single discharge space and this extension of the ribs doesn't completely separate as a wall between the two subpixels within the discharge space as claimed by claim 1.

Claim language of "extended rib for defining each of the subpixel units in each of the first discharge spaces" is clearly taught by Chen, since extending rib (58) of Chen is extended lengthwise to define two subpixels within a single discharge space, and without completely separating the subpixels within it.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karabi Guharay whose telephone number is 571-272-2452. The examiner can normally be reached on Monday-Friday 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*K. Guharay*  
Karabi Guharay  
Primary Examiner  
Art Unit 2879

6/28/06